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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,231	04/08/2004	Dongmao Zhang	12264/017	9405

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INDIANAPOLIS OFFICE 27879
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INDIANAPOLIS, IN 46204-2033

EXAMINER

EVANS, FANNIE L

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,231

Applicant(s)

ZHANG ET AL.

Examiner

F. L. Evans

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 22-27 and 35-39 is/are allowed.
6) ☒ Claim(s) 1-21 and 28-34 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 08 November 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 092305.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The Drawings

The drawings are objected to under 37 CFR § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the molecular sample support specified in claims 22-27 must be shown or the features canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR § 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR § 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The Information Disclosure Statement

The prior art cited in the information disclosure statement filed on September 23, 2005 has been considered.

Claim Rejections - 35 USC § 101

35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-21 and 28-34 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The invention set forth in method claims 1-21 and 28-34 does not result in the transformation of an article or physical object nor does the invention provide a practical application that produces a useful, concrete and tangible result. Merely detecting (line 15 of independent claim 1, lines 1-3 of dependent claim 20 and line 16 of independent claim 28); comparing (lines 2 and 3 of dependent claim 7 and lines 1-3 of dependent claim 31); processing (lines 1 and 2 of dependent claim 15); classifying (lines 1 and 2 of dependent claim 16); and quantifying (lines 1-3 of dependent claim 34) would not appear to be sufficient to constitute a tangible result, since the outcome of the detecting, comparing, processing, classifying and quantifying steps has not been used in a disclosed practical application nor made available in such a manner that its usefulness in a disclosed practical application can be realized. See, Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, 1300 OG 142, November 22, 2005. Attention is directed to section IV. of the guidelines, “DETERMINE WHETHER THE CLAIMED INVENTION COMPLIES WITH THE SUBJECT MATTER ELIGIBILITY OF 35 U.S.C. SEC. 101.” In part b. “Practical Application That Produces a Useful, Concrete, and Tangible Result” under section IV, the third sentence states ‘In determining whether the claim is for a “practical application,” the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather that the final result achieved by the claimed invention is “useful, tangible, and concrete.”’

The dependent claims not addressed above do not appear to add any real world application required by the guidelines.

Allowable Subject Matter

Claims 22-27 and 35-39 are allowed over the prior art of record.

Claims 1-21 and 28-34 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 101 set forth in this Office action.

As to independent claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of obtaining structural characteristic information from molecular specimens present in a solvent comprising the steps of providing a substantially planar solvophobic sample support having optically smooth substrate with a top surface covered by a solvophobic coating, applying a droplet of a specimen-containing solvent to the sample support surface and evaporating the solvent from the droplet at a rate permitting formation of a ring-like region of enhanced specimen deposit on the sample support surface, in combination with the rest of the limitations of the claim.

As to independent claim 22, the prior art of record, taken alone or in combination, fails to disclose or render obvious a molecular sample support to facilitate exposure of a specimen present in a solvent to radiation of a selected wavelength, the holder comprising a substantially planar substrate, a surface on the substrate having a roughness of less than about one-tenth the wavelength of the radiation, and a solvophobic enhancement layer of less than about one-quarter the wavelength of the radiation covering the substrate surface.

As to independent claim 28, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of reducing interference in Raman spectra taken from a specimen containing an analyte and a contaminant comprising the steps of providing a substantially planar solvophobic sample support having optically smooth substrate with a top surface covered by a solvophobic coating, applying a droplet of a specimen-containing solvent to the sample support surface and evaporating the solvent from the droplet at a rate permitting formation of a ring-like region of enhanced specimen deposit on the sample support surface, in combination with the rest of the limitations of the claim.

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As to independent claim 35, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of obtaining structural characteristic information from molecular specimens present in a solvent comprising the steps of: providing a substantially planar solvophobic sample support having optically smooth substrate with a top surface covered by a solvophobic coating, micro-printing an array of droplets of a specimen-containing solvent to the sample support surface and evaporating the solvent from each droplet at a rate permitting formation of a ring-like region of enhanced specimen deposit on the sample support surface at each droplet location, in combination with the rest of the limitations of the claim.

Fax/Telephone Numbers

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner whose telephone number is (571) 272-2414.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


F. L. EVANS
PRIMARY EXAMINER
ART UNIT 2877

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August 4, 2006